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Notes:

1. Untranslatable words are replaced with asterisks (***).
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[Claim(s)]

[Claim 1] After ****(ing) underwater the yeast-fungus object processed by aqueous acids and extracting RNA and an extracted component, The manufacture method of 5'5characterized by making - HOSUHOJI esterase act'-guanylic acid, 5 '- adenylic acid and 5'-cytidylic acid, and a 5'5which contained - uridylic acid 10% or more, respectively'-nucleotide quantity content yeast extract.

[Claim 2] After ****(ing) underwater the yeast-fungus object processed by aqueous acids and extracting RNA and an extracted component, The manufacture method of 5'5characterized by making - HOSUHOJI esterase and deaminase act'-guanylic acid, 5 '- inosinic acid and 5'-cytidylic acid, and a 5'5which contained - uridylic acid 10% or more, respectively'-nucleotide quantity content yeast extract.

[Claim 3] The manufacture method of a 5'-nucleotide quantity content yeast extract according to claim 1 to 2 that the processing conditions of aqueous acids are for pH 2-5, 30-90 degrees C, and 10 to 60 minutes.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention does not almost have a yeast smell and relates to the manufacture method of the yeast extract which contained the taste 5'-nucleotide so much, and the manufacture method of a yeast extract of processing a yeast-fungus object by aqueous acids beforehand especially.

[0002]

[Description of the Prior Art] Since a yeast extract has strong taste, it is blended with others, a seasoning, etc., and it is widely used for the food material and the seasoning. Although the

taste ingredients of a yeast extract are amino acid, peptide, sugars, a 5'-nucleotide, etc., especially the 5'-nucleotide is known as a taste ingredient. Although there is generally a part solution by an autolysis method, acid, or alkali etc. as the manufacture method of a yeast extract, since RNA is decomposed into the 2' - or 3'-nucleotide of non-taste according to these methods, The 5'5which is artificial flavor manufactured separately in order to consider it as high yeast extract of - nucleotide content'-nucleotide was added, and an artificial flavor fake colander was not obtained.

[0003] As how to make it contain so much, without canceling these faults and adding a 5'-nucleotide separately to the yeast extract which is a natural seasoning, Using the high yeast variant of RNA content, (1) After extracting heat treatment, RNA, etc., Methods, such as a method (WO88/05267) on which HOSUHOJI esterase etc. is made to act, and a method (JP,H6-113789,A) on which carry out alkali extraction of the (2) yeast-fungus objects, and HOSUHOJI esterase etc. is subsequently made to act after heat treatment, are reported.

[0004]

[Problem(s) to be Solved by the Invention] However, by the former method, it can manufacture [that a yeast smell may remain by these methods, and] only from the very high strain of a RNA content, The latter method had the fault that in addition the content of a 5'-nucleotide was low, when using it for other seasonings etc., having blended, although this fault could not be found.

[0005]

[Means for Solving the Problem] By processing a yeast-fungus object by aqueous acids beforehand as a result of research wholeheartedly in order that this invention persons may solve this technical problem Even if there is almost no yeast smell and it did not use the high mycelia cake of especially the RNA content, it finds out that the high yeast extract of the content of a 5'-nucleotide is obtained, and came to complete this invention. Namely, this invention **** underwater the yeast-fungus object processed by (1) aqueous acids. After extracting RNA and an extracted component, make 5'-HOSUHOJI esterase act. Contained 5' - guanylic acid and 5'-adenylic acid and 5' - cytidylic acid and 5'-uridylic acid 10% or more, respectively. The yeast-fungus object processed by the manufacture method of - nucleotide quantity content yeast extract and 5'(2) aqueous acids is ****(ed) underwater. After extracting RNA and an extracted component, make 5'-HOSUHOJI esterase and deaminase act. Contained 5' - guanylic acid and 5'-inosinic acid and 5' - cytidylic acid and 5'-uridylic acid 10% or more, respectively. The manufacture method of a 5'5of above (1) or (2) descriptions manufacture method [of - nucleotide quantity content yeast extract] and whose processing conditions of (3) aqueous acids are for pH 2-5, 30-90-degree-C, 10 - 60 minutes'-nucleotide quantity content yeast extract is offered.

[0006] This invention is explained in detail hereafter. Although Saccharomyces **, Hansenula

**, and the yeast genus *Candida* which the yeast-fungus object used by this invention is raw yeast, and are edible yeast are mentioned, a yeast genus *Candida* with high content of RNA is desirable in inside.

[0007] In this invention, a yeast-fungus object is beforehand processed by aqueous acids. As aqueous acids used, the solution of organic acid, such as the solution of inorganic acid, such as sulfuric acid, chloride, and phosphorus acid, Gyi acid, acetic acid, and citrate, or the combination of these acid can be illustrated. As for the processing conditions in the aqueous acids of a yeast-fungus object, it is desirable to make it become 5 to 20%, and to process yeast concentration in pH 2-5, 30-90 degrees C, and 10 to 60 minutes. It falls [the content of a 5'-nucleotide may fall or / **** of a yeast extract] and is not desirable if it separates from this range. The yeast-fungus object processed by aqueous acids is separated by methods, such as centrifugal separation.

[0008] RNA and an extracted component are extracted from the yeast-fungus object processed by aqueous acids. Although extraction of RNA and an extracted component can be carried out, for example by usual state methods, such as protease processing and alkali extraction, its alkali extraction (pH 8-12, 40-80 degrees C) is desirable.

[0009] In order for most RIBONUKURE ase of the yeast-fungus inside of the body to remove or denature by processing beforehand by aqueous acids in this invention, Although heating inactivation processing of the enzyme in a mycelia cake of the back before extraction of RNA and an extracted component is not indispensable, in order to make it completely deactivated, or since the next enzyme decomposition is advanced smoothly, it can heat-treat at 80-100 degrees C.

[0010] An extract is changed into 5'- nucleotide and 5'-guanylic acid, 5'- adenylic acid or 5'- inosinic acid, and 5'- cytidylic acid and 5'-uridylic acid, when 5'-HOSUHOJI esterase is acted by a usual state method and it makes deaminase act as occasion demands. The origin in particular of the 5'-HOSUHOJI esterase and deaminase which are used is not limited, is a commercial thing, and is enough.

[0011] After reaction liquid removes solid content by methods, such as centrifugal separation, after heat-treating at 90-100 degrees C in order to deactivate the used enzyme, and it condenses clear supernatant liquid, it obtains the yeast extract which contained each 5'- nucleotides 10% or more by making it powder or the shape of a paste.

[0012]

[Example] A work example is given below and this invention is explained still in detail.

1000ml of work-example 1 *Candida* UCHIRUSU KJS-0582 share (FERM P-7396 share, 8% of RNA content) 10% mycelia cake soil suspension After adjusting to pH 3.5 and processing 60 degrees C for 30 minutes with 10N sulfuric acid, mycelia cakes were collected by centrifugal separation, the mycelia cake was washed with water, and sulfuric acid and an excessive

extract were removed. With water, to 10% of mycelia cake concentration, 90 degrees C of bacteria objects were heated for 30 minutes, after carrying out ****, adjustment and, the enzyme in a mycelia cake was deactivated completely, and it cooled at 65 degrees C, and KASEI soda solution was added to this, and it was referred to as pH 9, and processed for 60 minutes at this temperature, and the extract was extracted. Centrifugal separation removed the mycelia cake residual substance, the obtained clear supernatant liquid was adjusted to pH 5 in chloride solution, RIBONUKURE ase Amano D(product made from Amano Pharmaceuticals) 0.1g was added, and it reacted at 65 degrees C for 5 hours. After the end of a reaction, after deactivating the enzyme which heated 90 degrees C of reaction liquid for 30 minutes, and was added, it condensed and spray-dried and 11g of yeast extract powder was obtained. This yeast extract contained 18.5% of - guanylic acid, 15.5% of 5'5'-adenylic acid, and 12.5% of - cytidylic acid and 11% of 5'5'-uridylic acid, respectively. As a result of dissolving 1g of this yeast extract in 100ml of hot water (80 degrees C) and carrying out organic-functions evaluation of this solution by 15 panelists, all the members estimated that a yeast smell was not felt.

[0013] 1000ml of work-example 2 Candida UCHIRUSU KJS-0582 share (FERM P-7396 share, 8% of RNA content) 10% mycelia cake soil suspension After adjusting to pH 3.5 and processing 80 degrees C for 60 minutes with 10N sulfuric acid, mycelia cakes were collected by centrifugal separation, the mycelia cake was washed with water, and sulfuric acid and an excessive extract were removed. With water, adjustment and after carrying out ****, KASEI soda solution was added to 10% of mycelia cake concentration, and the bacteria object was set to pH 9, and was processed for 60 minutes at 65 degrees C, and the extract was extracted. Centrifugal separation removed the mycelia cake residual substance, the obtained clear supernatant liquid was adjusted to pH 5 in chloride solution, RIBONUKURE ase Amano D (product made from Amano Pharmaceuticals)0.1g was added, and it reacted at 65 degrees C for 5 hours. Subsequently, this reaction liquid was cooled at 50 degrees C, DEAMIZAIMU (product made from Amano Pharmaceuticals) 0.07g was added, and it was made to react for 2 hours. After the end of a reaction, after deactivating the enzyme which heated 90 degrees C of reaction liquid for 30 minutes, and was added, it condensed and spray-dried and 10g of yeast extract powder was obtained. This yeast extract contained 18% of - guanylic acid, 14% of 5'5'-inosinic acid, and 12% of - cytidylic acid and 10% of 5'5'-uridylic acid, respectively. As a result of dissolving 1g of this yeast extract in 100ml of hot water (80 degrees C) and carrying out organic-functions evaluation of this solution by 15 panelists, all the members estimated that most yeast smells were not felt.

[0014] 1000ml of 10% mycelia cake soil suspension of 6316 shares (FERM BP-1657 share, 16% of RNA content) of work-example 3 Candida UCHIRUSU CBS After adjusting to pH 3.5 and processing 70 degrees C for 30 minutes with 10N sulfuric acid, mycelia cakes were

collected by centrifugal separation, the mycelia cake was washed with water, and sulfuric acid and an excessive extract were removed. With water, adjustment and after carrying out ****, KASEI soda solution was added to 10% of mycelia cake concentration, and the bacteria object was set to pH 9, and was processed for 60 minutes at 65 degrees C, and the extract was extracted. Centrifugal separation removed the mycelia cake residual substance, the obtained clear supernatant liquid was adjusted to pH 5 in chloride solution, RIBONUKURE ase Amano D(product made from Amano Pharmaceuticals)0.1g was added, and it reacted at 65 degrees C for 5 hours. After the end of a reaction, after deactivating the enzyme which heated 90 degrees C of reaction liquid for 30 minutes, and was added, it condensed and spray-dried and 13g of yeast extract powder was obtained. This yeast extract contained 25% of - guanylic acid, 23% of 5'5'-adenylic acid, and 16% of - cytidylic acid and 20% of 5'5'-uridylic acid, respectively. As a result of dissolving 1g of this yeast extract in 100ml of hot water (80 degrees C) and carrying out organic-functions evaluation of this solution by 15 panelists, all the members estimated that most yeast smells were not felt.

[0015] 1000ml of comparative example 1 Candida UCHIRUSU KJS-0582 share (FERM P-7396 share, 8% of RNA content) 10% mycelia cake soil suspension After processing for 30 minutes at 90 degrees C and deactivating the enzyme in a mycelia cake completely, KASEI soda solution was added, and it was referred to as pH 9, and processed for 60 minutes at 65 degrees C, and the extract was extracted. Centrifugal separation removed the mycelia cake residual substance, the obtained clear supernatant liquid was adjusted to pH 5 in chloride solution, RIBONUKURE ase Amano D(product made from Amano Pharmaceuticals)0.1g was added, and it reacted at 65 degrees C for 5 hours. After the end of a reaction, after deactivating the enzyme which heated 90 degrees C of reaction liquid for 30 minutes, and was added, it condensed and spray-dried and 22g of yeast extract powder was obtained. This yeast extract contained 5% of - guanylic acid, 6% of 5'5'-adenylic acid, and 4% of - cytidylic acid and 7% of 5'5'-uridylic acid, respectively. As a result of dissolving 1g of yeast extracts obtained in this 1g of yeast extracts and work example 1 in 100ml of hot water (80 degrees C), respectively and carrying out organic-functions evaluation by 15 panelists, the way of the yeast extract with which all the members were obtained in the work example 1 estimated that there were few yeast smells clearly.

[0016]

[Effect of the Invention] As explained above, even if according to this invention there is almost no yeast smell and it does not use the high yeast-fungus object of especially RNA content, the yeast extract which contained the 5'-nucleotide so much is obtained.

[Translation done.]